

Report

US 50 Existing Conditions

**Indiana
Department of
Transportation**

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SECTION 1
STUDY AREA TERMINI AND SOCIOECONOMIC PROFILE

1.01 STUDY AREA TERMINI

This existing conditions report is being completed as part of an Environmental Assessment (EA) for US 50 in Dearborn County, Indiana. The corridor termini are Dillsboro on the west end and the intersection of US 50 and State Route (SR) 1/Belleview Avenue (I-275 Connector) on the east end. The study corridor passes near the City of Dillsboro and through the Cities of Aurora, Lawrenceburg, and Greendale and is approximately 18 miles in length. The general study area includes the southern portion of Dearborn County. Figure 1.01-1 shows the study corridor's location within Indiana. Figure 1.01-2 shows state and federal highways adjacent to the study corridor. Figure 1.01-3 at the end of this chapter shows the study corridor and intersecting routes.

Consideration was given to extending the study corridor to include US 50 from the I-275 Connector to the Indiana-Ohio state line. The roadway characteristics, however, are quite different north of the I-275 Connector than they are south of it. Traffic volumes fall from nearly 35,000 vehicles per day to less than 14,000 and the cross section is reduced to four-lanes undivided from six-lanes with a center left turn lane. These considerations make the I-275 Connector a logical study corridor terminus.

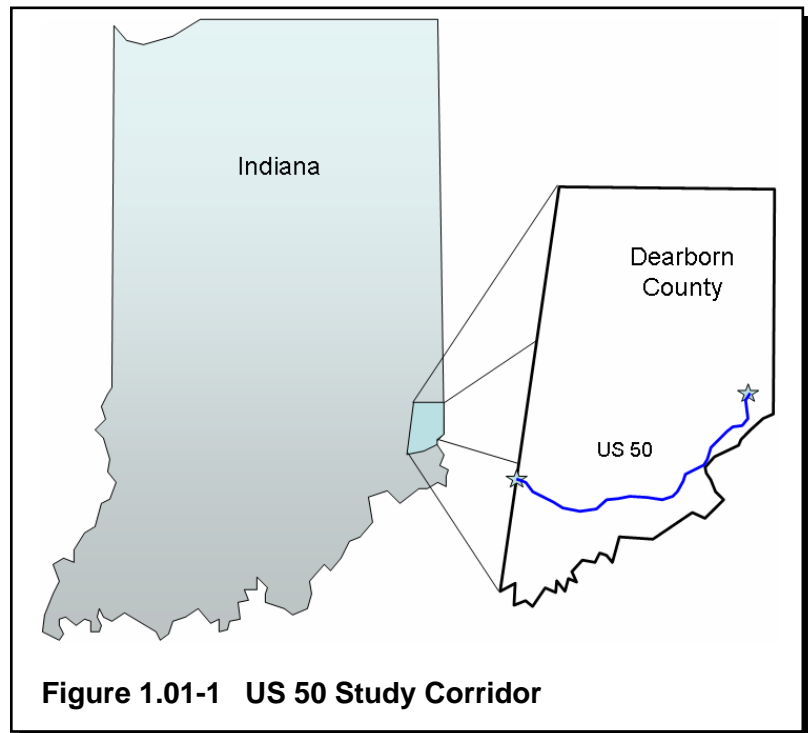


Figure 1.01-1 US 50 Study Corridor

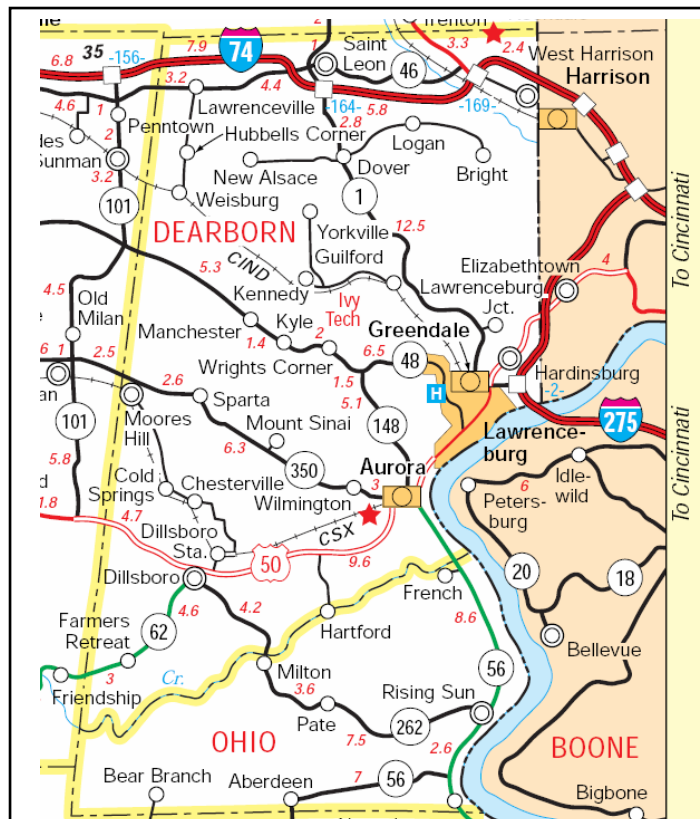


Figure 1.01-2 State Highways within Dearborn County

Source: Indiana DOT

1.02 SOCIOECONOMIC PROFILE

Dearborn County is located in southeastern Indiana, just outside of the Cincinnati, Ohio metropolitan area. SR 1 and SR 56 are the primary north-south routes while US 50 provides east-west mobility. US 50 connects Cincinnati to points west and southwest.

According to the US Census Bureau, Dearborn County had an estimated population of 48,583 in the year 2004 and experienced 18.7 percent growth in population between 1990 and 2000. This made Dearborn County the 12th fastest growing county in the state over that time period. Indiana's state population grew 9.7 percent from 1990 to 2000. According to the Dearborn County Transportation Assessment, March 2004, it is also one of the fastest growing counties within the Ohio-Kentucky-Indiana Regional Council of Governments' (OKI) planning area. Dearborn County's population age profile is similar to that of the State's overall.

The largest population centers in 2000 within Dearborn County were Lawrenceburg with 4,685 people, Greendale with 4,296 people, and Aurora with 3,965 people. The 1999 median household income in Dearborn County was \$48,899 compared to \$41,567 statewide. The County's per capita income in 1999 of \$20,431 was nearly identical to the state average. The County's unemployment rate was 3.3 percent in 2000, which is below the national and state averages. In 2001, there were 963 nonfarm employers in the County resulting in employment of 13,561 people. This employment number decreased 1.8 percent from 2000 to 2001.

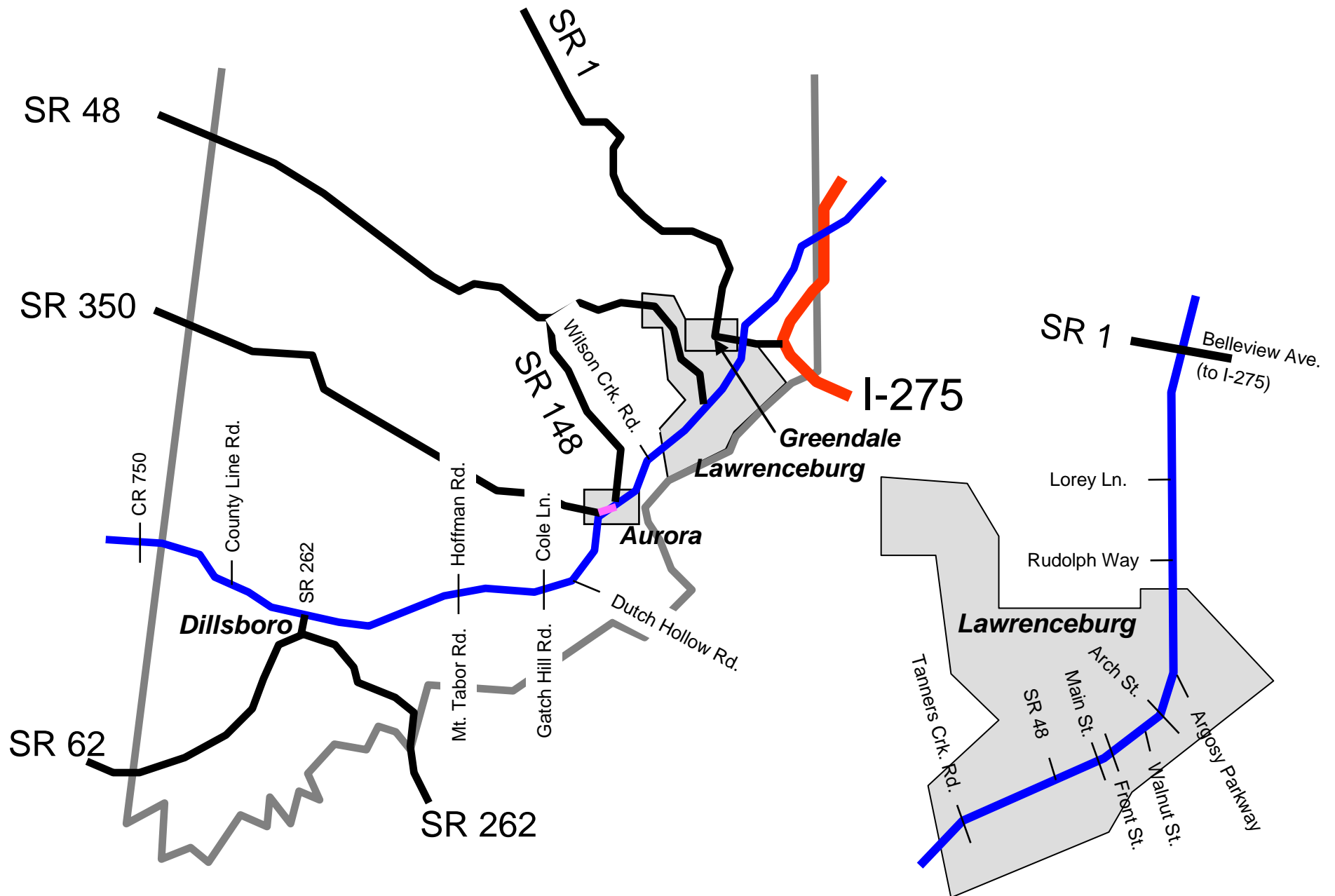


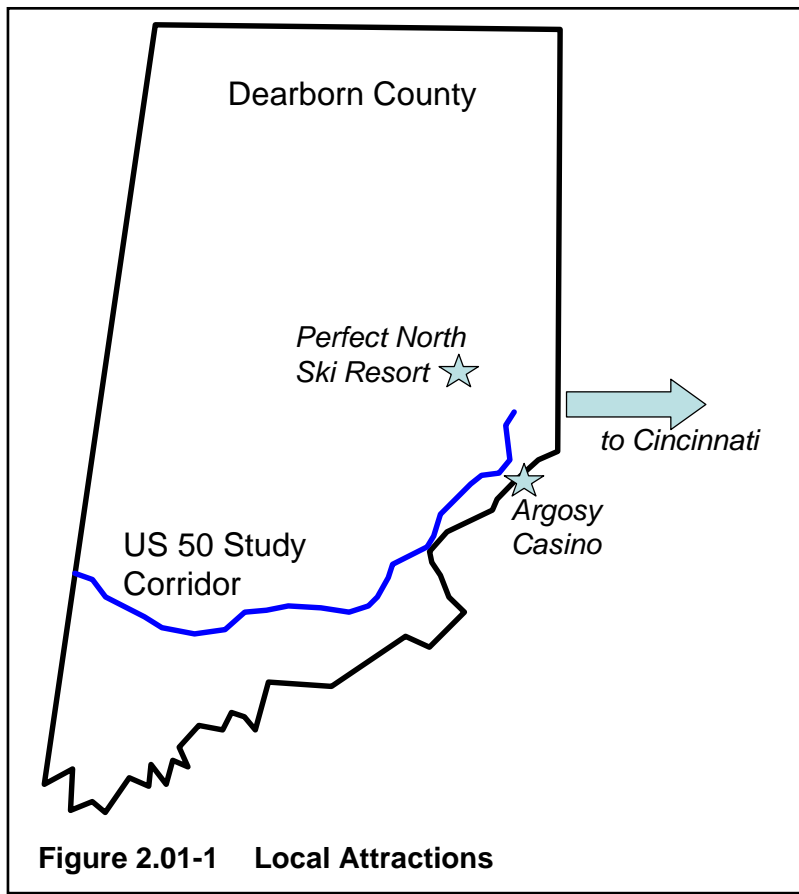
Figure 1.01-3 US 50 Study Corridor and Intersecting Roads

SECTION 2
STUDY AREA ROADWAY CHARACTERISTICS

2.01 GENERAL STUDY AREA TRANSPORTATION CHARACTERISTICS

There are no public airports or passenger rail facilities serving Dearborn County. Transit is minimal, although a privately operated, demand responsive ride service is available. Bicycle and pedestrian systems exist within the incorporated areas and, to some extent, along the Ohio River. The overall lack of transportation options, however, results in a dependence on automobile travel. This is verified by the fact that more than 70 percent of County households own two or more vehicles. Nearly 83 percent of commuters countywide drive to work alone, contributing to high US 50 traffic volumes.

Local attractions also result in increased transportation demand in Dearborn County. The Argosy Casino is located in Lawrenceburg off of US 50. It provides riverboat gambling and hotel facilities that attract an estimated 3.5 million visitors to the area annually. In the winter months, Perfect North Slopes offers skiing and snow tubing. The resort is located northeast of Greendale and attracts an estimated 150,000 to 175,000 patrons annually. Finally, central Dearborn County is only 25 miles west of downtown Cincinnati, Ohio resulting in significant directional commuter traffic. Figure 2.01-1 shows the location of these attractions.



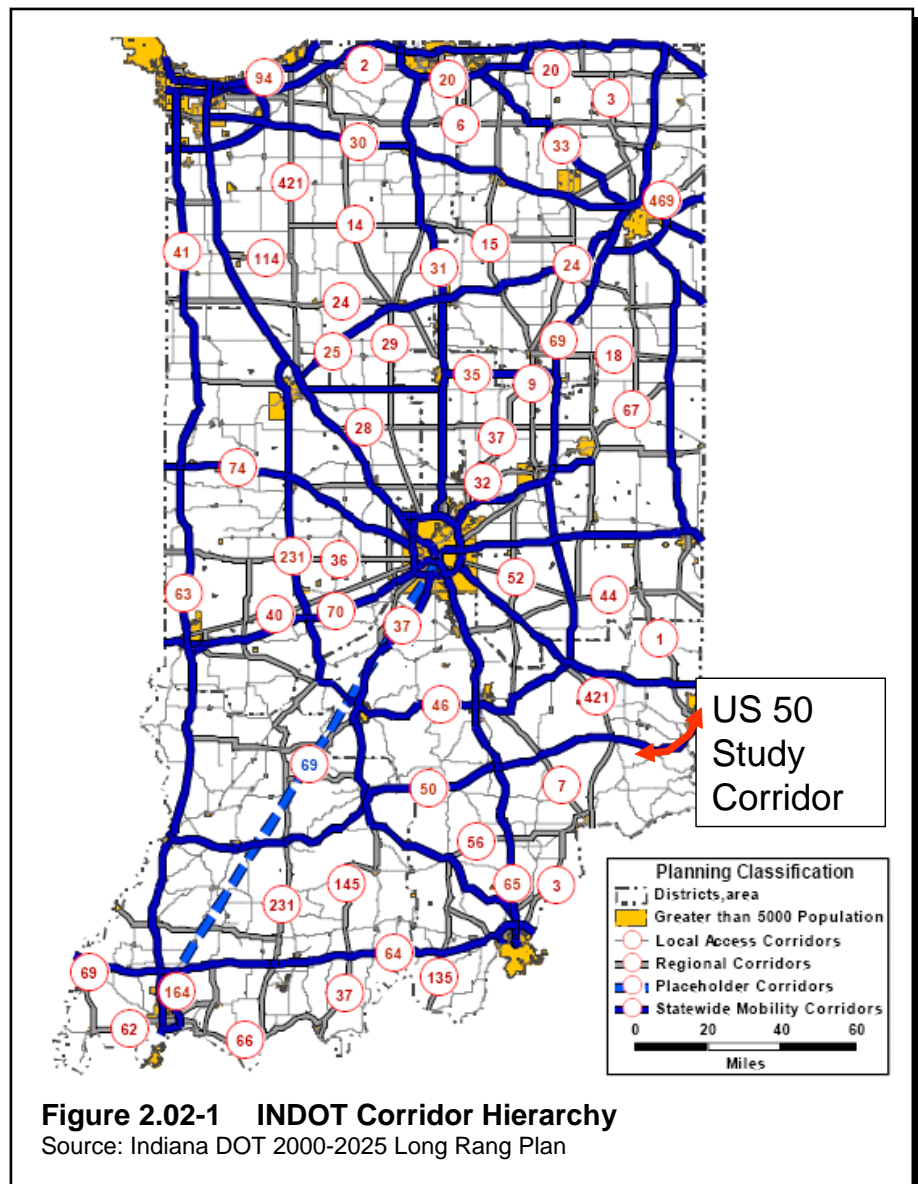
2.02 ROADWAY CHARACTERISTICS

A. Classification

In the Indiana Department of Transportation's (INDOT's) 2000-2025 Long Range Plan, US 50 is classified as a Statewide Mobility Corridor, as shown in Figure 2.01-1. These corridors connect major metropolitan areas of the state and neighboring states, provide regional access to cities and regions around the state, and play a vital role in the economic development of the state. Statewide Mobility Corridors are characterized by high design standards, high traffic speeds, free-flowing conditions, and large vehicular and truck traffic volumes. They are generally multilane divided highways with full-access control, where possible. This portion of US 50 is functionally classified as a Rural Principal Arterial and it is part of the National Highway System.

In addition to US 50, major routes through Dearborn County include I-74 and SR 1.

I-74 is classified as a Statewide Mobility Corridor in INDOT's 2000-2025 Long Range Plan, a Rural Interstate, and is part of the National Highway System. SR 1 is classified as a Regional Corridor in INDOT's 2000-2025 Long Range Plan. These corridors connect smaller cities and regions to Statewide Mobility Corridors and have mid-level design standards, high to moderate speeds, free-flowing conditions where practical, and moderate vehicular and truck traffic volumes. SR 1 is classified as a Rural Minor Arterial. It is not part of the National Highway System.



B. Existing Geometrics

US 50 is a traditional rural four-lane divided highway from the Dearborn/Ripley County line to just southwest of Aurora where the median narrows. Dedicated left-turn lanes or a two-way left-turn lane (TWLTL) are provided, depending on the density of access points, from southwest of Aurora to Argosy Parkway in Lawrenceburg. US 50 is a six-lane divided highway with dedicated left-turn lanes or a two-way left-turn lane configuration from Argosy Parkway to SR-1/I-275, the end of the study corridor.

Although detailed geometric data for US 50 was unavailable for use in this document, field visits suggest the horizontal and vertical curves along the study corridor generally conform to design standards for this type of facility. Shoulder width is deficient being from 4 to 6 feet in the rural portions of the study corridor and from 0 to 4 feet in urban locations.

C. Existing Access Points

The number and spacing of access points along a highway has a direct impact on the road's capacity and safety. As access point density increases, crashes tend to increase and capacity decreases. Access point density on US 50 varies significantly with the highest density occurring between SR 148 and Wilson Creek Road on the east side of Aurora. Table 2.02-1 shows the access point density on US 50.

| Location | Access Point Density (Accesses/Mile) | Comments |
|--|---|--|
| County Highway 750 to County Line Road | 14.7 | Mostly Agricultural or Low Density Residential Access |
| County Line Road to SR 262 | 9.6 | Mostly Agricultural or Low Density Residential Access |
| SR 262 to Mount Tabor Road/Hoffman Road | 27.9 | Mostly Agricultural or Low Density Residential Access |
| Mount Tabor Road/Hoffman Road to Cole Lane/Gatch Hill Road | 27.5 | Mostly Agricultural or Low Density Residential Access |
| Cole Lane/Gatch Hill Road to Dutch Hollow Road | 29.4 | Mostly Agricultural or Low Density Residential Access |
| Dutch Hollow Road to SR 350 | 5.2 | Mostly Public Access Points (Local Streets) |
| SR 350 to SR 148 | 38.0 | Exclusively Commercial and Public Access (Local Streets) |
| SR 148 to Wilson Creek Road | 53.3 | 75 percent are Commercial Accesses |
| Wilson Creek Road to SR 48 | 31.0 | Almost Exclusively Commercial Accesses |
| SR 48 to Argosy Parkway | 34.5 | Almost Exclusively Commercial Accesses |
| Argosy Parkway to SR 1/I-275 | 22.1 | 75 percent are Commercial Accesses |

Table 2.02-1 Access Point Density on US 50

As indicated in Table 2.02-1, these direct access points on US 50 tend to serve lower volume traffic generators (agricultural and low-density residential land uses) on the west side of Dearborn County and higher volume traffic generators (commercial land uses) on the east side. The portions of US 50 shown in **bold** indicate locations that experienced higher than average crash rates for this type of facility. Additional information on US 50 crash rates can be found in Section 3 of this report.

D. Bridges

INDOT maintains an inventory of all bridges over 20 feet in length which includes safety and functionality information. The inventory includes the following data:

- Bridge Number: Number assigned to the structure in the Bridge Inspection Report.
- Facility Carried: The name of the road or highway that the bridge serves.
- Feature Intersected: The name of the water feature, valley, railroad, or road corridor that the bridge spans.
- Deficiencies: Bridges can be determined to be Structurally Deficient (SD) or Functionally Obsolete (FO).
- Sufficiency Rating: This number quantifies the need for replacement or repair and ranges from 0 to 100. It is based on a bridge's structural adequacy and safety, serviceability and functionality, and its degree of public importance. Any bridge that is determined to be SD or FO and carries a sufficiency rating below 50 is eligible for Federal Aid for replacement. Any bridge that is determined to be SD or FO and carries a sufficiency rating above 50 but below 80 is eligible for Federal Aid for rehabilitation.

Table 2.02-2 shows the INDOT inventory data for US 50 bridges within the study limits.

| Bridge Number | Feature Intersected | Facility Carried | Sufficiency Rating | Functionally Obsolete | Structurally Deficient |
|---|----------------------------|------------------|--------------------|-----------------------|------------------------|
| 050-15-02169 | CSX RR and 2 Local Streets | US 50 | 78.7 | No | No |
| 050-015-1232 | Wilson Creek | US 50 | 70.0 | No | No |
| 050-15-00210 | Tanners Creek | US 50 | 42.2 | Yes | No |
| Source: INDOT via <i>SR 101 Corridor Improvement Feasibility Study: Existing Conditions Report</i> by Bernardin, Lochmueller & Associates, Inc. | | | | | |
| Table 2.02-2 INDOT Inventory Data for US 50 Bridges Within the Study Limits | | | | | |

According to the data, the Tanners Creek bridge in Lawrenceburg is FO and would qualify for Federal Aid. The City of Lawrenceburg is currently investigating improvement alternatives for this bridge and intends to locally fund the project.

SECTION 3
ROADWAY OPERATIONS

3.01 EXISTING CRASH RATES

The study team obtained crash data for the US 50 study corridor from 2003 through 2005. In rural areas, crash rates are typically analyzed along corridors. They are expressed as the number of crashes per 100 million vehicle miles. Corridor crash rates on US 50 from the Ripley County line to Wilson Creek Road are shown in Table 3.01-1a, listed from west to east.

| Location | Daily VMT | Total Crashes | Injury Crashes | Fatal Crashes | Total Rate | Injury Rate | Fatal Rate |
|---|-----------|---------------|----------------|---------------|------------|-------------|------------|
| County Highway 750 to County Line Road | 14,250 | 10 | 1 | 0 | 64 | 6 | 0 |
| County Line Road to SR 262 | 16,300 | 2 | 0 | 0 | 11 | 0 | 0 |
| SR 262 to Mount Tabor Road/Hoffman Road | 30,050 | 29 | 7 | 0 | 88 | 21 | 0 |
| Mount Tabor Road/Hoffman Road to Cole Lane/Gatch Hill Road | 21,850 | 20 | 5 | 0 | 84 | 21 | 0 |
| Cole Lane/Gatch Hill Road to Dutch Hollow Road | 12,200 | 29 | 7 | 0 | 217 | 52 | 0 |
| Dutch Hollow Road to SR 350 | 22,350 | 50 | 9 | 0 | 204 | 37 | 0 |
| SR 350 to SR 148 | 17,300 | 61 | 12 | 0 | 322 | 63 | 0 |
| SR 148 to Wilson Creek Road | 28,250 | 78 | 24 | 0 | 252 | 78 | 0 |
| Statewide Rates for Rural Arterials, 1997-99 | -- | 11,190 | 2,828 | 118 | 187 | 47 | 1.96 |
| Crash Rates per 100 Million Vehicle Miles Crashes with Deer Excluded | | | | | | | |

Table 3.01-1a Corridor Crash Rates 2003 to 2005

In general, the rural portions of US 50 east of Cole Lane and through the City of Aurora experienced overall and injury crash rates above the statewide average for Rural Principal Arterial highways. The most common contributing factors to crashes on US 50 include an animal or object in the road, following too closely, and failure to yield the right-of-way.

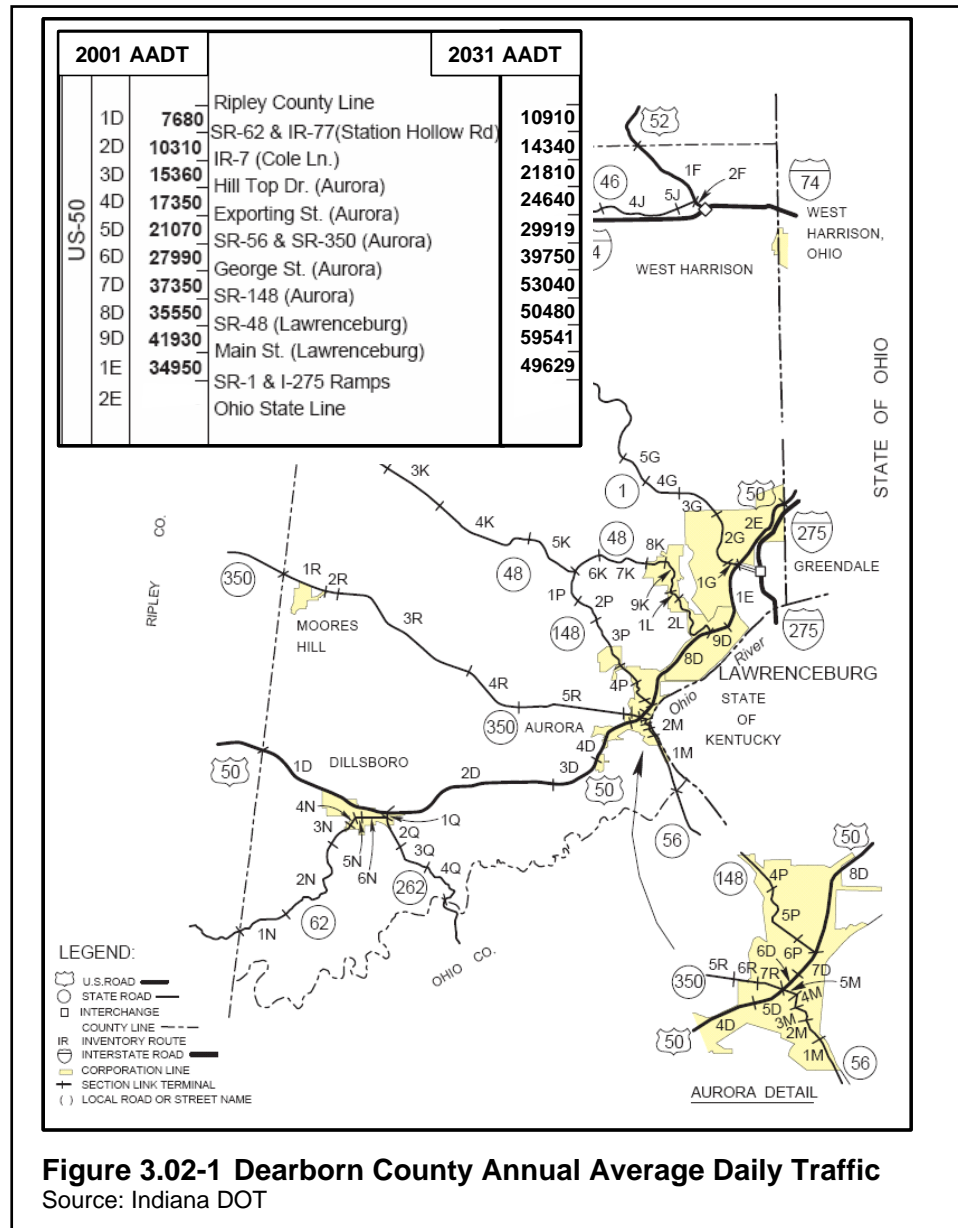
In urban areas, crash rates are typically analyzed at intersections. They are expressed as the number of crashes per one million vehicles entering the intersection. Intersection crash rates at locations, which traffic volume data was available for and a significant number of crashes occurred, are shown in Table 3.01-1b listed from west to east. Note that crash data for the US 50/SR 1/Bellevue Avenue intersection was not included in the data provided by INDOT.

| Location | Daily Entering Vehicles | Total Crashes | Injury Crashes | Fatal Crashes | Total Rate | Injury Rate | Fatal Rate |
|--|-------------------------------|---------------|-------------------|------------------|---------------|----------------|---------------|
| US 50 and SR 48 | 46,500 | 48 | 13 | 0 | 0.94 | 0.26 | 0.00 |
| US 50 and Main Street | 46,000 | 13 | 2 | 0 | 0.26 | 0.04 | 0.00 |
| US 50 and Front Street | 32,500 | 26 | 4 | 0 | 0.73 | 0.11 | 0.00 |
| US 50 and Water Street | 26,000 | 8 | 1 | 0 | 0.28 | 0.04 | 0.00 |
| US 50 and Arch Street | 32,000 | 72 | 20 | 0 | 2.05 | 0.57 | 0.00 |
| INDOT Threshold for Intersections | | | | | 2.00 | | |
| Crash Rates per Million Vehicles Entering the intersection | | | | | | | |
| Table 3.01-1b Corridor Crash Rates 2003 to 2005 | | | | | | | |

An intersection crash rate of 2.0 crashes per million vehicles entering is often established by INDOT as the threshold above which safety improvements may be considered/investigated. The only intersection analyzed that had a crash rate above this threshold from 2003 to 2005 was US 50 and Arch Street. This intersection also had the highest injury crash rate of those studied, with an injury producing crash occurring every 55 days, on average. Rear-end crashes were the most common type (51 percent) with right-angle crashes occurring second most often (18 percent).

3.02 EXISTING AND FORECASTED TRAFFIC VOLUMES

Figure 3.02-1 shows the 2001 Annual Average Daily Traffic in Dearborn County on US 50. The daily traffic ranged from less than 8,000 vehicles per day near the Ripley County line to over 40,000 vehicles per day through downtown Lawrenceburg. Traffic volumes on US 50 in 2006 are likely to be 7 to 10 percent higher based on typical traffic growth trends.



Traffic forecasts completed by INDOT predict annual growth of 1.4 percent for the corridor as a whole. Actual traffic growth will vary along the corridor depending on changes in adjacent and nearby land use and in regional travel patterns. Figure 3.01-1 also shows the forecasted traffic volumes along US 50 assuming 1.4 percent annual growth.

Commercial truck traffic is also a factor along the study corridor. US 50's classification as a statewide mobility corridor, and as a rural principal arterial suggest that it is a key route for commercial vehicle travel. Vehicle classification data from INDOT indicates that average daily truck traffic accounts for a significant portion of total traffic along the corridor. On the west end of the study corridor, single unit and tractor-trailer combinations make up 18 to 20 percent of total traffic. These percentages tend to decrease from west to east along the corridor, with commercial truck traffic accounting for 10 to 13 percent of all traffic between Aurora and Lawrenceburg. Additionally, turning movement counts in Lawrenceburg indicate that trucks on US 50 represent from 6 to 13 percent of total traffic during the AM peak hour, and from 2 to 4 percent during the PM peak hour.

3.03 TRAFFIC OPERATIONS

Traffic operations were analyzed using two methodologies. First, for more rural portions of US 50 west of Lawrenceburg, overall corridor operations were analyzed using the Highway Capacity Software (HCS) Multilane module. This method of analysis considers the highway cross section (divided or undivided), lane width, lateral clearance, access point density, traffic volumes, type of terrain (level, rolling, or mountainous), and vehicle classification (percent heavy vehicles and percent recreational vehicles). The highway is evaluated based on a Level of Service (LOS). Along a rural multilane highway the LOS rating is based on average travel speed and vehicle density (passenger cars per lane per mile). The LOS ratings range from LOS A (ideal conditions) to LOS F (volume exceeds highway capacity). LOS A indicates that the average vehicle travels at the highway's ideal free-flow speed. LOS F indicates that traffic volumes exceed the highway's theoretical capacity and major delays and safety concerns can be expected.

Within the Lawrenceburg-Greendale area, from the Tanner's Creek Parkway to SR 1 intersections, microsimulation was completed using Synchro/SimTraffic software. Microsimulation models individual vehicles on a simulated network that represents existing or proposed street conditions. Operations using this type of analysis are evaluated based on conditions at the intersections. LOS is based on average delay in seconds per vehicle for traffic entering the intersection. LOS A indicates that travelers will experience minimal average delay at an intersection (less than 10 seconds). LOS F indicates that the average delay is quite high (more than 50 seconds at an unsignalized intersection and 80 seconds at a signalized intersection).

LOS E is often considered to be the limit of acceptable delay and LOS F indicates a facility on which improvements are needed. Many communities and agencies establish LOS D as their minimum acceptable condition.

A. Existing Conditions

1. Corridor Operations

Table 3.03-1 shows the results of the AM and PM corridor operations assessment of the western portion of the study corridor. All locations operate at LOS C or better during the AM and PM peak hours.

| Location | Direction | | | |
|---|--------------|--------------|--------------|--------------|
| | Eastbound | | Westbound | |
| | AM Peak Hour | PM Peak Hour | AM Peak Hour | PM Peak Hour |
| County Highway 750 to County Line Road | LOS A | LOS A | LOS A | LOS A |
| County Line Road to SR 262 | LOS A | LOS A | LOS A | LOS A |
| SR 262 to Mount Tabor Road/Hoffman Road | LOS A | LOS A | LOS A | LOS A |
| Mount Tabor Road/ Hoffman Road to Cole Lane/Gatch Hill Road | LOS A | LOS A | LOS A | LOS A |
| Cole Lane/Gatch Hill Road to Dutch Hollow Road | LOS A | LOS A | LOS A | LOS A |
| Dutch Hollow Road to SR 350 | LOS A | LOS A | LOS A | LOS A |
| SR 350 to SR 148 (Aurora) | LOS B | LOS B | LOS A | LOS B |
| SR 148 to Wilson Creek Road | LOS C | LOS B | LOS A | LOS C |

Table 3.03-1 Existing Corridor LOS from HCS

2. Intersection Operations

Table 3.03-2 shows the results of the AM and PM intersection operations assessment.

| Location | Intersection Operations | | | |
|----------------------------------|--------------------------|------------------------|--------------------------|-------------------------------|
| | AM Peak Hour | | PM Peak Hour | |
| | Overall Intersection Ops | LOS F Movement(s) | Overall Intersection Ops | LOS F Movement(s) |
| US 50 and Tanner's Creek Parkway | LOS B | | LOS C | |
| US 50 and SR 48 | LOS D | | LOS E | EBL SBL, SBR |
| US 50 and Main Street | LOS B | | LOS D | EBL NBL, NBT SBL |
| US 50 and Front Street | LOS A | | LOS C | NBL |
| US 50 and Walnut Street | LOS A | | LOS A | NBL SBL |
| US 50 and Arch Street | LOS A | | LOS B | EBT WBT |
| US 50 and Argosy Parkway | LOS B | | LOS C | |
| US 50 and Rudolph Way | LOS A | | LOS A | |
| US 50 and Lorey Lane | LOS A | | LOS B | |
| US 50 and SR 1/ Bellevue Ave. | LOS D | EBL, EBT NBL SBL | LOS F | EBT WBL NBL SBL, SBT |

Note: NBL = Northbound Left NBT = Northbound Through NBR = Northbound Right
SBL = Southbound Left SBT = Southbound Through SBR = Southbound Right
EBL = Eastbound Left EBT = Eastbound Through EBR = Eastbound Right
WBL = Westbound Left WBT = Westbound Through WBR = Westbound Right

Table 3.03-2 Existing Intersection Operations from Synchro/SimTraffic

Microsimulation modeling suggests, and field observation confirms, that significant congestion exists today along the US 50 corridor in Lawrenceburg during periods of high traffic. While concerns during the AM peak hour are relatively minimal, PM peak hour traffic volumes result in significant queuing and delays for eastbound and westbound travelers.

Field observation indicates that queuing on a typical weekday afternoon can block intersections and signal cycle failures are common for westbound traffic through downtown Lawrenceburg. Figure 3.03-1 shows a picture of heavy queuing taken on a Tuesday afternoon in late January, 2006.



US 50 and Main Street Looking West—Westbound US 50 Rolling Queue from the SR 48 Intersection Downstream Reaching the Main Street Intersection.



US 50 and Main Street looking East – Westbound US 50 Rolling Queue Reaching the Front Street Intersection Upstream.

Figure 3.03-1 Weekday Afternoon Field Observations

Existing volume to capacity (V/C) ratios from Synchro modeling also indicate that PM peak-hour traffic congestion is to be expected. At the SR 1 intersection, the northbound left-turn and westbound left-turn movement demand is greater than the traffic signal's capacity for these movements during the heaviest periods within the peak hour. When this condition exists, queues will grow longer after each successive signal cycle until the traffic demand falls below the signal's capacity. The V/C ratios for the eastbound left-turn and westbound through movements at SR 48 are also greater than 1.0 at times under existing conditions. This is often a strong indicator of the need to consider intersection capacity improvements.

The topography surrounding Lawrenceburg limits opportunities for bypass corridors. Investigations are underway, and will be continued in the US 50 EA, to identify a suitable route to relieve US 50 through downtown Lawrenceburg. The corridor's importance to regional truck traffic requires that any bypass route considered be designed to accommodate heavy commercial vehicles (through limiting longitudinal grades, providing adequate lane width, etc.).

In addition to regional mobility, local access to services is limited by the fact that the only crossing of Tanner's Creek on the west side of Lawrenceburg is the US 50 bridge. Should an incident, bridge repairs, or a weather event force this crossing to be closed, no suitable alternative route across Tanner's Creek currently exists. This is a particular concern since a regional hospital is located west of Tanner's Creek, while the majority of Lawrenceburg and Greendale residents live east of it. An additional crossing is desirable to provide system redundancy.

B. Future No-Build Conditions

1. Corridor Operations

Table 3.03-3 shows the results of the AM and PM corridor operations assessment on western US 50 using forecasted 2031 traffic and the existing transportation corridor.

All locations operate at LOS C or better during the AM and PM peak hours except one. Westbound traffic during the PM peak hour is forecasted to experience LOS D conditions in 2031 between Wilson Creek Road and SR 148. Consolidation of access points and the addition of traffic signals at key intersections may be needed to address this afternoon congestion.

| Location | Direction | | | |
|---|--------------|--------------|--------------|--------------|
| | Eastbound | | Westbound | |
| | AM Peak Hour | PM Peak Hour | AM Peak Hour | PM Peak Hour |
| County Highway 750 to County Line Road | LOS A | LOS A | LOS A | LOS A |
| County Line Road to SR 262 | LOS A | LOS A | LOS A | LOS A |
| SR 262 to Mount Tabor Road/Hoffman Road | LOS A | LOS A | LOS A | LOS A |
| Mount Tabor Road/ Hoffman Road to Cole Lane/Gatch Hill Road | LOS A | LOS A | LOS A | LOS A |
| Cole Lane/Gatch Hill Road to Dutch Hollow Road | LOS A | LOS A | LOS A | LOS B |
| Dutch Hollow Road to SR 350 | LOS A | LOS A | LOS A | LOS B |
| SR 350 to SR 148 (Aurora) | LOS C | LOS B | LOS B | LOS C |
| SR 148 to Wilson Creek Road | LOS C | LOS C | LOS B | LOS D |

Table 3.03-3 Future (2031) No-Build Corridor LOS from HCS

2. Intersection Operations

Table 3.03-2 shows the results of the AM and PM intersection operations assessment.

| Location | Intersection Operations | | | |
|----------------------------------|--------------------------|--------------------------------|--------------------------|---|
| | AM Peak Hour | | PM Peak Hour | |
| | Overall Intersection Ops | LOS F Movement(s) | Overall Intersection Ops | LOS F Movement(s) |
| US 50 and Tanner's Creek Parkway | LOS C | | LOS D | |
| US 50 and SR 48 | LOS E | EBL | LOS F | EBT, EBL WBT, WBR SBL |
| US 50 and Main Street | LOS A | | LOS F | EBL NBL, NBT, NBR SBL, SBT, SBR |
| US 50 and Front Street | LOS A | | LOS E | WBL NBL, NBT, NBR SBL, SBT, SBR |
| US 50 and Walnut Street | LOS B | | LOS B | NBL SBL |
| US 50 and Arch Street | LOS B | | LOS B | EBL WBL |
| US 50 and Argosy Parkway | LOS C | NBL | LOS C | |
| US 50 and Rudolph Way | LOS B | | LOS A | |
| US 50 and Lorey Lane | LOS B | | LOS B | |
| US 50 and SR 1/ Bellevue Ave. | LOS F | EBL, EBT, EBR NBL SBL | LOS F | EBL, EBT WBL, WBT, WBR NBL, NBT SBL, SBT |

Table 3.03-4 Future (2031) No-Build Intersection Operations from Synchro/SimTraffic

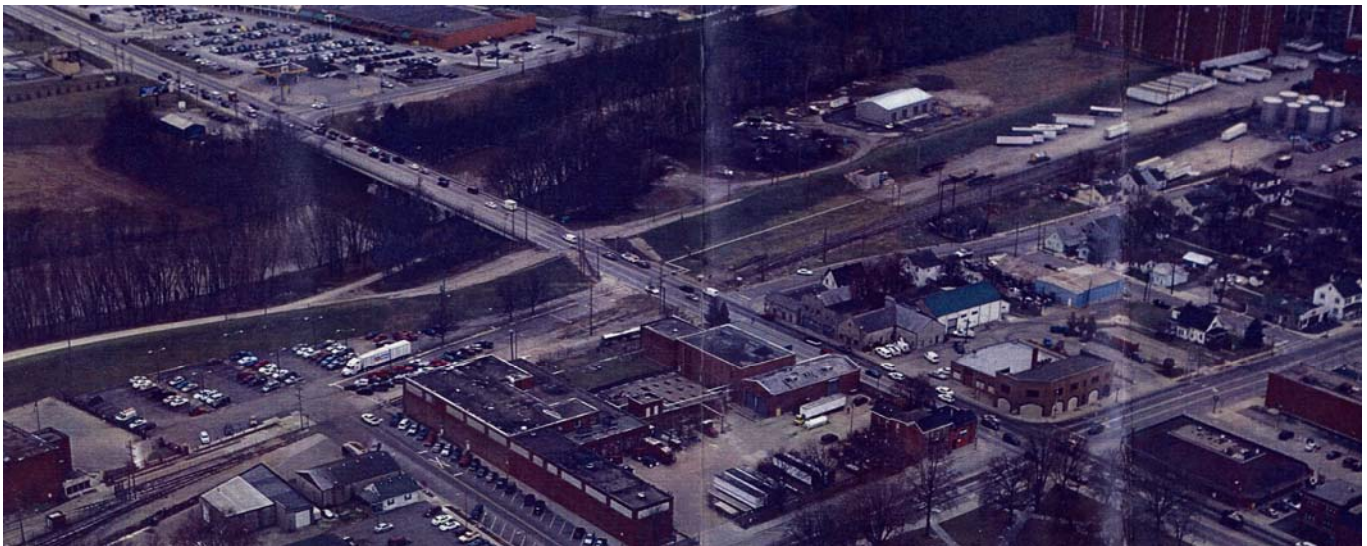
Microsimulation modeling indicates that congestion and queuing concerns will continue to worsen as traffic volumes increase. As traffic demand further exceeds the capacity of the signalized intersections on US 50, periods of severe delays and queuing will grow in length. Ultimately, travelers that have the option will change their behavior by traveling outside of peak traffic periods, traveling via alternate routes, traveling via alternative modes (if available), and/or eliminating nonessential trips.

SECTION 4
RELATED STUDIES

4.01 RELATED STUDIES

A. Proposed Eads Parkway (US 50) Bridge over Tanners Creek Study

The City of Lawrenceburg is investigating adding a second bridge on US 50 over Tanners Creek between SR 48 and Main Street. American Consulting, Inc. (ACE) has completed a preliminary analysis of alternatives and has developed a proposed alignment for the crossing. INDOT is currently reviewing this study and the impact that the proposed project would have on US 50 operations and mobility. Figure 4.01-1 shows the current proposed alignment.



Existing US 50 Configuration over Tanners Creek looking Northwest from Downtown Lawrenceburg

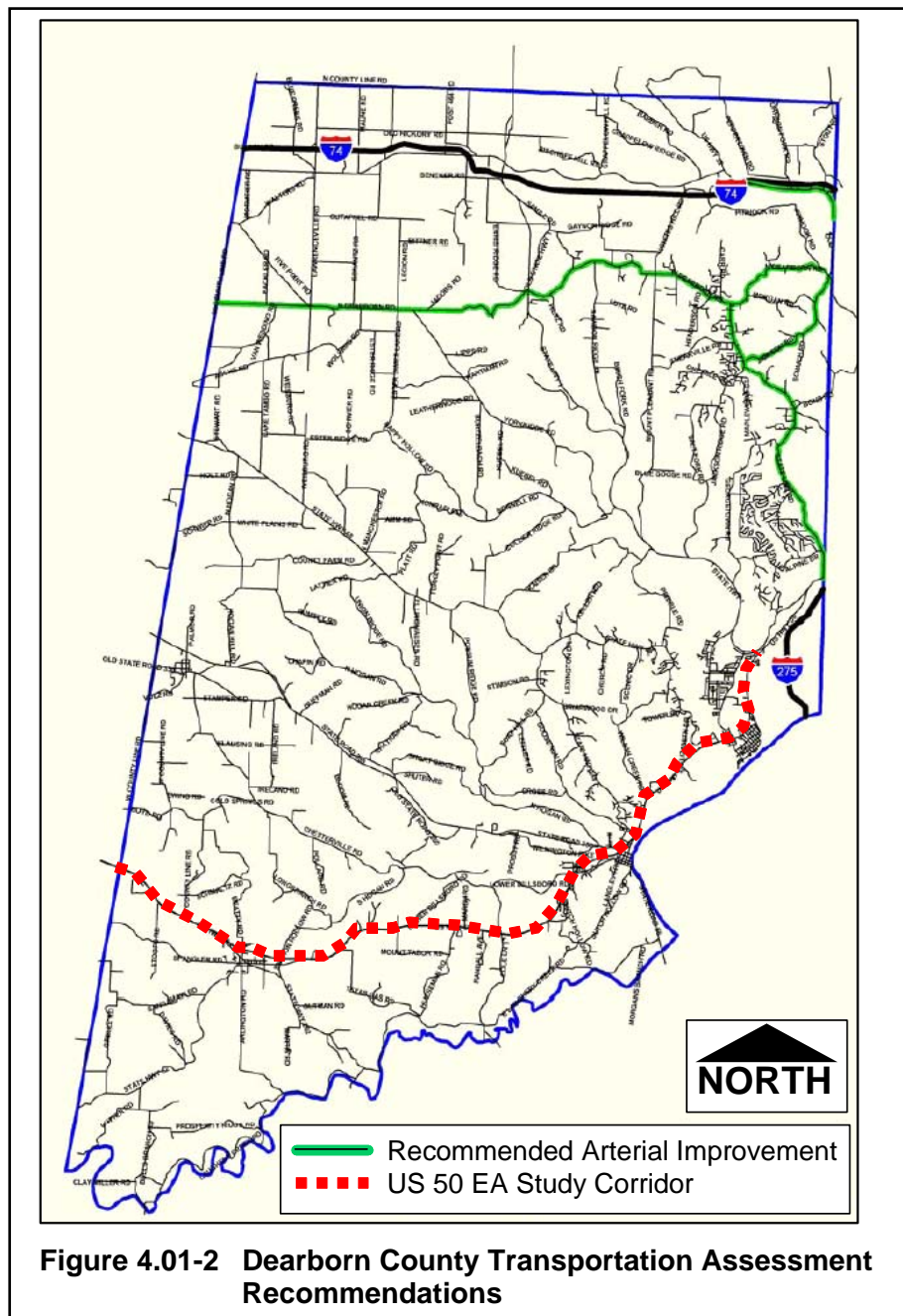


Proposed US 50 Configuration

Figure 4.01-1 City of Lawrenceburg Proposed Bridge on US 50 over Tanners Creek

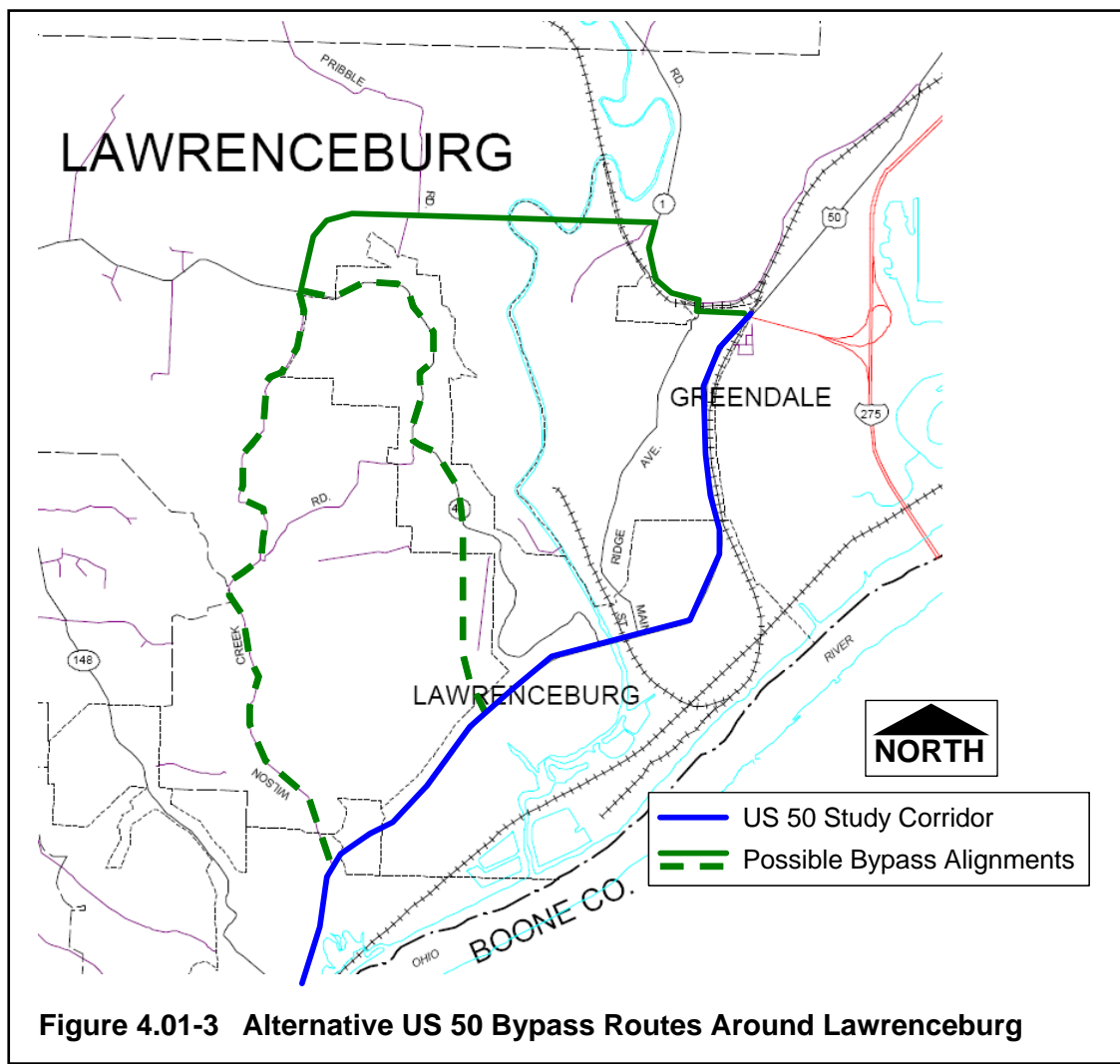
B. Dearborn County Transportation Assessment

Completed in March 2004 by Parsons Brinckerhoff, Inc., this study provides an inventory of existing transportation facilities in Dearborn County, assesses the physical condition and capacity of area roadways, and develops recommendations for improvements to the County and Local systems. Figure 4.01-2 shows the arterial roadways on which improvement projects are recommended to bring the roadway up to typical design standards in terms of lane and shoulder width. These routes include Jamison Road, North Dearborn Road, North State Street, Old US 52, and State Line Road.



C. SR 1 to SR 48 Connector Study

This on-going study is being completed by Strand Associates, Inc. The project investigates alternative routes intended to serve as a reliever to the congested Lawrenceburg portion of US 50. Figure 4.01-3 shows the routes considered.



The study has found that if the bypass were constructed today, it would draw approximately 7,300 vehicles per day (about 15 percent of all traffic) from US 50. This study is on-going and is currently in the Environmental Assessment stage. This connection will be considered as part of the US 50 EA.

D. Regional Rail Plan

The Ohio-Kentucky-Indiana Regional Council of Governments (OKI), the Southwest Ohio Regional Transit Authority (SORTA), the Transit Authority of Northern Kentucky (TANK), and Hamilton

County, Ohio, are working together to plan for a regional passenger rail transit system in Hamilton County and the Greater Cincinnati area. Western Corridor transit options being considered include a commuter rail line using RailAmerica's existing CIND Line along River Road serving Lawrenceburg. Investigations are ongoing.

E. SR 101 Corridor Improvement Feasibility Study

INDOT completed the National Environmental Policy Act (NEPA) process on SR 101 in December 2002. The study sought to identify options for improving north-south mobility in southeastern Indiana. The study concluded that the most feasible alternative was a new roadway between Markland Dam and US 50 to I-74. The study also recommended a phased approach to project implementation. Phase 1 included evaluation of opportunities for short-term, low-cost improvements. Phase 2 included design and construction of the southern portion of the preferred alternative. Phase 3 included design and construction of the northern portion of the preferred alternative.

In August 2004, INDOT completed a position paper regarding the recommendations of the SR 101 study. INDOT has elected not to include the recommended improvements in Indiana's 2030 Long-Range Transportation Plan, choosing instead to focus on improvements to SR 129 and the SR 56/SR 156 connection between US 50 and SR 101 at the Markland Dam.

F. OKI 2030 Regional Transportation Plan

The Ohio-Kentucky-Indiana Regional Council of Governments (OKI) carries out transportation planning for eight counties in three states surrounding the Cincinnati, Ohio metropolitan area. Dearborn County, Indiana is included in this planning region. The OKI 2030 Regional Transportation Plan serves as a blueprint for transportation projects through the year 2030.

Recommendations for Dearborn County include implementation of Transportation Demand Management strategies to reduce single occupant vehicle trips, improvement of access management, and optimization of roadway operations (through signal management, intersection reconfiguration, etc.). The plan also recommends encouragement and expansion of bicycle and pedestrian travel including completion of an additional 5 miles of the multi-use path along the Ohio River between Aurora and Lawrenceburg.

In addition to the recommendations above, the plan was amended in April 2005 to include recommendations regarding vehicular capacity expansion. Figure 4.01-4 shows the recommended projects in Dearborn County. Project 501 is capacity expansion of the US 50 bridge over Tanners Creek on the west side of Lawrenceburg (currently being investigated by the City of Lawrenceburg). Project 502 is well north of the US 50 study corridor. It is a new 2-lane roadway between North Dearborn Road and I-74. Project 503 is the SR 1 to SR 48 connector currently being investigated by Strand

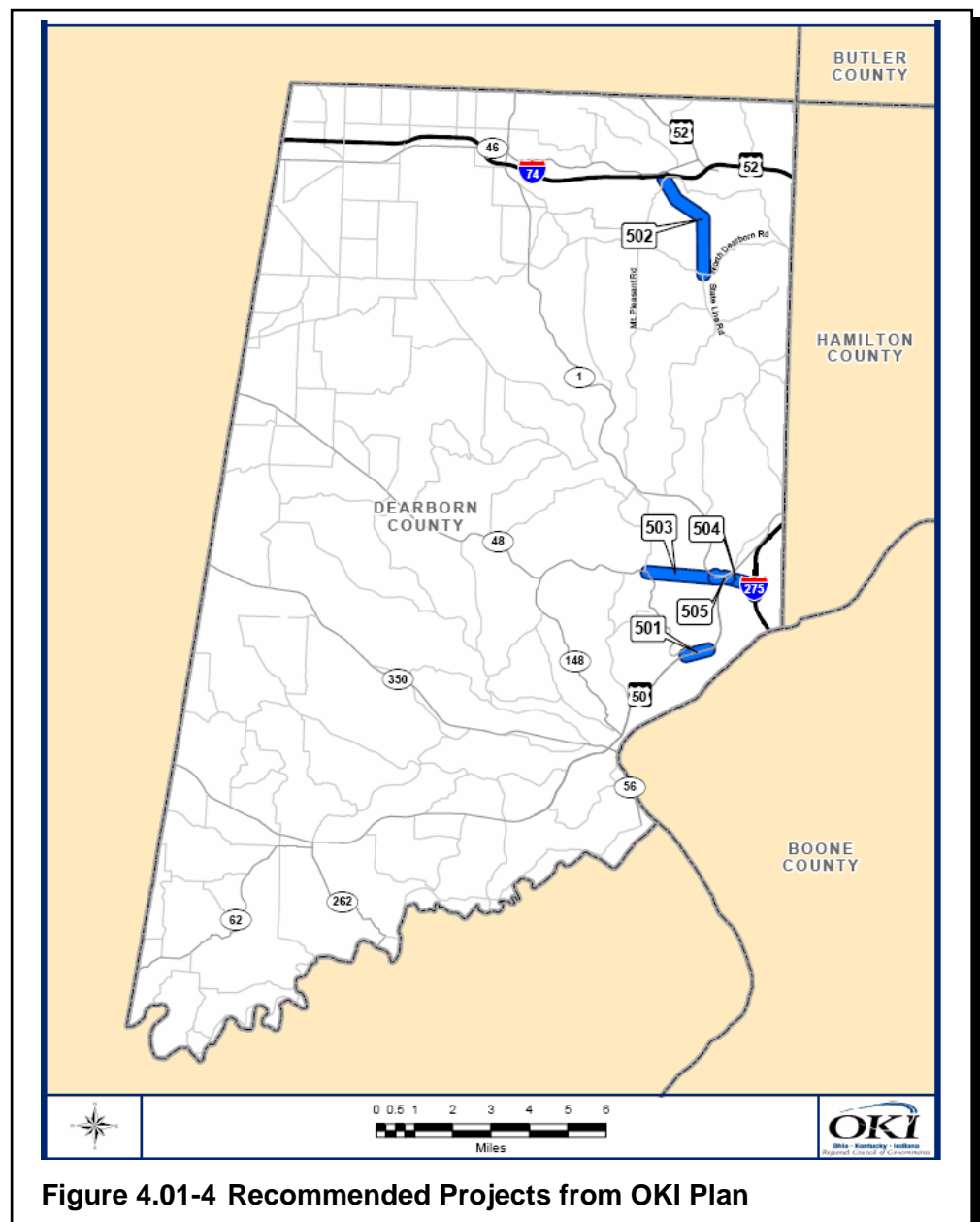


Figure 4.01-4 Recommended Projects from OKI Plan

Associates for the City of Lawrenceburg and Dearborn County. Project 504 is the addition of an eastbound travel lane on Bellevue Avenue from US 50 to I-275. Finally, project 505 is the realignment and expansion of Bellevue Road from a 2-lane to a four-lane road between US 50 to SR 1.

G. Gateway Study

OKI has begun a the Gateway Study along US 50. The study will focus on the link between land use and transportation including identifying compatible future land uses along US 50, opportunities for application access management strategies, and more. The US 50 EA will work in concert with the Gateway Study to minimize duplicated effort on both studies.

SECTION 5
COMMITTED PROJECTS

5.01 COMMITTED PROJECTS

Various projects have been recently completed, are underway, or are planned in Dearborn County. Table 5.01-1 shows projects in INDOT's Statewide Transportation Improvement Program for fiscal year 2005 to 2007, as well as those in the Draft fiscal year 2006 to 2008 program (project number shown in **Bold** type). These are considered committed projects for the purposes of the US 50 EA.

| Project | Sponsor | Description | Phase | Program | Cost | FY |
|----------------|-----------|--|----------|--------------------------|--------------------------|--------------|
| 9880700 | Aurora | Aurora to Lawrenceburg Trail; Wilson Creek to Lesko Park | CN | Enhancement | \$595,000 | 2005 |
| 0201232 | Aurora | Streetscaping improvements in downtown Aurora | CN | Enhancement | \$625,000 | 2007 |
| 0089220 | Aurora | Bike/pedestrian facilities from Lesko Park on the Ohio River to Aurora | CN | Enhancement | \$1,500,000 | 2006 |
| 0088850 | Aurora | City street, road rehabilitation, Conwell St from US 50 NE to Exporting St | PE | Group III | \$200,000 | 2006 |
| 9607780 | County | Bridge rehabilitation; SR 56 over Laughery Creek at Ohio/Dearborn County Line | CN | Enhancement | \$798,000 | 2006 |
| 0200722 | County | County road, bridge rehabilitation on Bell Branch Road over Laughery | PE CN | Local Bridge | \$51,000 \$510,000 | 2006 2007 |
| 9185440 | County | County road, road rehabilitation, Wilson Creek Road from Bridge #58 to US 50 | PE CN | Group IV | \$200,000 \$2,000,000 | 2006 2008 |
| 9485961 | County | County road, bridge construction, Bridge #200 over Tanners Creek on new road from SR 48 to SR 1 | PE | Group IV | \$180,000 | 2006 |
| 9408050 | Greendale | Bike/pedestrian trail surrounding Greendale | CN | Enhancement | \$600,000 | 2005 |
| 0100343 | INDOT | Bridge replacement; SR 1 over Salt Fork Creek, 2.25 miles N of US 50 | PE RW | Bridge Preservation | \$240,000 \$80,000 | 2005 2006 |
| 8822115 | INDOT | SR 1 erosion and landslide control at Mt. Pleasant Road, 6.2 mile N of US 50 | PE RW | Roadside Improvements | \$30,000 \$30,000 | 2005 2007 |
| 9405840 | INDOT | SR 1 intersection improvement at Georgetown Road | CN | Safety Improvements | \$2,292,000 | 2005 |

| Project | Sponsor | Description | Phase | Program | Cost | FY |
|-------------------------------|---------|--|----------|-----------------------------|--------------------------|--------------|
| 8145550 | INDOT | SR 46 slide correction, 2.8 mile W of US 52 at ACL of St. Leon | RW | Roadside Improvements | \$15,000 | 2005 |
| 0101253 | INDOT | US 50 intersection improvement at George Street in Aurora | PE RW | Safety Improvements | \$15,000 \$50,000 | 2005 2007 |
| 0100867 0300762 0300763 | INDOT | SR 56 road reconstruction from Dam View Lane to Aurora, includes 2 bridges | PE | Non-interstate Preservation | \$732,000 | 2005 |
| 0300719 | INDOT | SR 1, Bridge rehabilitation, bridge over I-74, 0.30 miles S of SR 46 | PE CN | Bridge Preservation | \$40,000 \$1,200,000 | 2006 2008 |
| 0201179 | INDOT | SR 1, bridge rehabilitation, bridge over Central RR Co of Indiana, 0.35 miles N of US 50 | PE CN | Bridge Preservation | \$60,000 \$400,000 | 2006 2007 |
| 0200016 0200018 0200020 | INDOT | SR 46, bridge replacement, bridge over Logan Creek, 1.14 miles E of SR 1, includes 2 other bridges | PE | Bridge Preservation | \$29,000 | 2008 |
| 0400285 | INDOT | US 50, bridge rehabilitation, bridge over Tanners Creek and service road, 0.08 miles E of SR 48 | PE CN | Bridge Preservation | \$50,000 \$1,500,000 | 2007 2008 |
| 0400080 | INDOT | US 50, buildings, pump station replacements | CN | Roadside Improvements | \$1,000,000 | 2007 |
| 0101100 | INDOT | US 50, bridge rehabilitation, bridge over CSX RR and Railroad Ave, 1.05 miles W of SR 56 | PE CN | Bridge Preservation | \$120,000 \$1,000,000 | 2007 2008 |

Table 5.01-1 INDOT's FY 2005 to FY 2007 Transportation Improvement Program

In addition to the on-going and proposed INDOT projects listed above, the projects recommended in the Ohio-Kentucky-Indiana Regional Council of Governments (OKI) 2030 Regional Transportation Plan are also considered committed projects for the purposes of the US 50 EA. The recommended projects within Dearborn County are listed in Table 5.01-2.

| ID | Facility | Location | Description | Cost |
|-----|---------------------------------|-----------------------------|----------------------------------|-------------|
| 501 | US 50 Bridge over Tanners Creek | Main Street to SR 48 | Additional Capacity for Crossing | \$6,000,000 |
| 502 | Bright to I-74 Connector | North Dearborn Road to I-74 | New 2-lane Road | \$6,000,000 |

| ID | Facility | Location | Description | Cost |
|-----|-------------------------|----------------|---------------------------------------|--------------|
| 503 | SR 1 to SR 48 Connector | SR 1 to SR 48 | New 4-lane Road | \$20,000,000 |
| 504 | US 50 Connector Ramp | US 50 to I-275 | Add 1 EB Lane | \$2,000,000 |
| 505 | Bellevue Road | US 50 to SR 1 | Realign and Add 1 Lane Each Direction | \$3,000,000 |

Table 5.01-2 OKI 2030 Regional Transportation Plan Recommended Projects in Dearborn County

SECTION 6
STUDY AREA ENVIRONMENTAL CHARACTERISTICS

6.01 ENVIRONMENTAL AND CULTURAL CHARACTERISTICS

Dearborn County is a mixture of flatlands in the northwest with rolling hills and creek valleys throughout the remainder. The southeast border of the county is formed by the Ohio River. It remains a primarily rural county.

According to the Dearborn County Interim Report, Dearborn County is the third oldest county of the Indiana Territory. It contains some of state's earliest and most historically significant architecture. There are historic districts within Dillsboro, Aurora, and Lawrenceburg. In Dillsboro, the interim report identifies 6 structures that provide an "outstanding" contribution to the architectural and cultural history of the area. Most of them are located near SR 62 and none of them are within 100 feet of US 50. Between Dillsboro and Aurora, there are 3 outstanding structures near US 50. In Aurora there are 31 outstanding structures located mainly downtown and along SR 148, one of which is within 100 feet of US 50. Between Aurora and Lawrenceburg there are 3 outstanding structures near US 50. In Lawrenceburg there are about 60 outstanding structures in Lawrenceburg. Most are located downtown or along SR 1/Ridge Avenue and 6 or 7 are within 100 feet of US 50.

According to the Indiana Department of Natural Resources, Indiana ranks second only to Illinois in its percentage of Prime Farmland. Moving from west to east along the US 50 study corridor, the highway traverses unconditional prime farmland for about 8 miles beginning at the Ripley County Line. From about one mile southwest of Aurora through the SR 1/Belleview Avenue intersection the study corridor enters conditional prime farmland. This is farmland that can be considered prime if it meets certain conditions such as proper drainage and/or protection from flooding.

Approximately one mile southwest of Aurora US 50 enters the floodplain of the Ohio River and its tributaries. The remainder of the study corridor is within this floodplain, except through Lawrenceburg where the City has erected an earthen flood protection berm.

There are four possible hazardous material sites located within a few hundred feet of US 50 in the Aurora area. There is one additional site on SR 48 just north of US 50 in Lawrenceburg. Each of these sites has been identified by the Indiana Department of Environmental Management as a Leaking Underground Storage Tank (LUST) location. If disturbed, LUST sites sometimes require expensive mitigation to remove contaminated soils.

Small pocket wetlands exist throughout Dearborn County, but the large, contiguous wetlands in the county are generally located along the streams and rivers. US 50 crosses Wilson Creek northeast of Aurora and Tanners Creek in Lawrenceburg.

In terms of air quality, Dearborn County as a whole is not currently identified as a non-attainment area. However, Lawrenceburg Township has been identified as a non-attainment area for Ozone and particulate matter. Non-attainment regions are those that do not meet the Environmental Protection Agency's (EPA) standards for ambient air quality. As such, among other requirements,

transportation improvement projects must conform with Indiana's plan to achieve attainment in Lawrenceburg Township. The EPA will require a project-level conformity determination as part of the US 50 EA.

Figure 6.01-1 shows environmental and cultural resources within the study area.

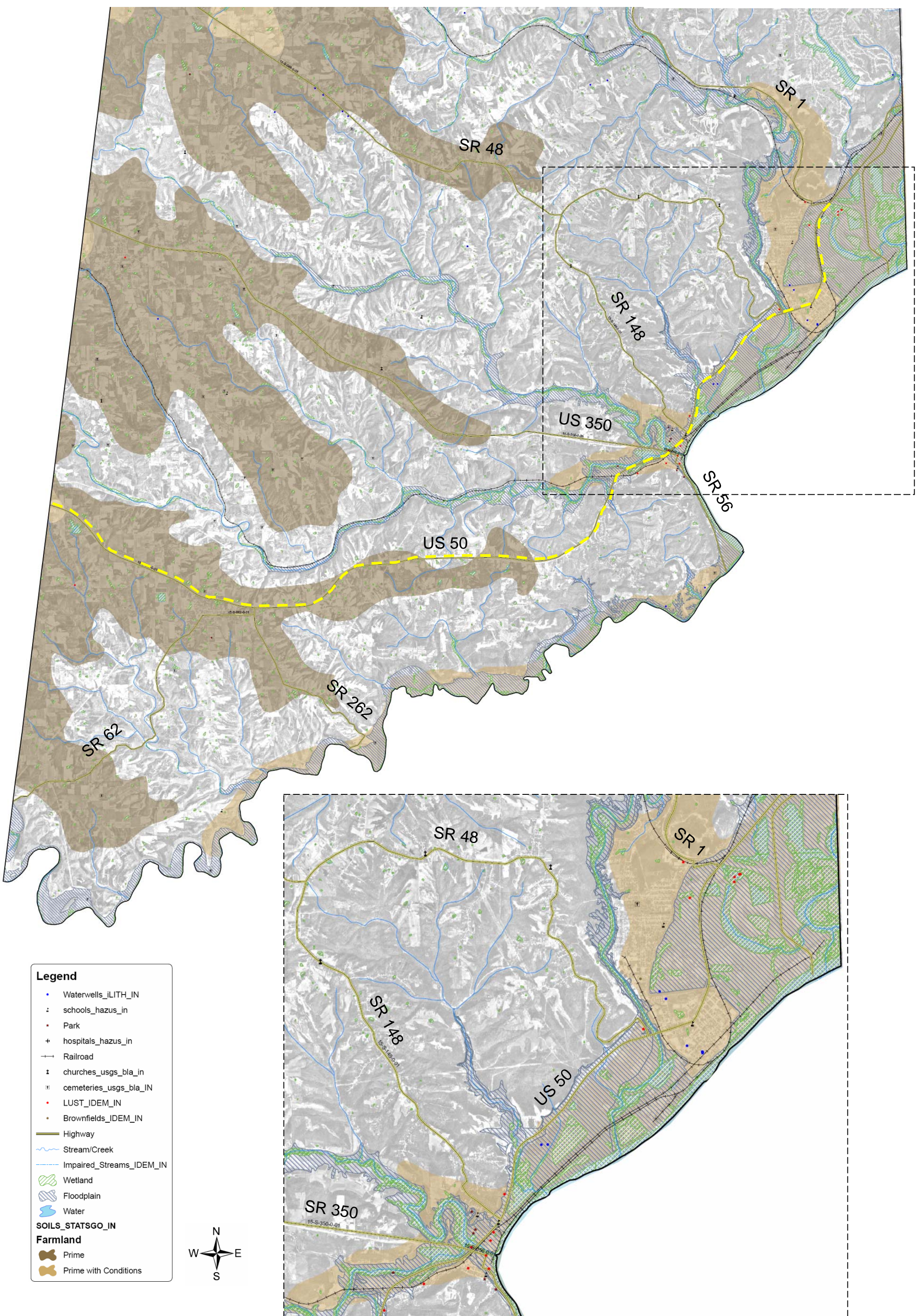


Figure 6.01-1 US 50 Study Area Environmental Characteristics